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ABSTRACT

This study explores the extent and nature of the use of materials supplied by industries to teachers of economics and business studies. Northamptonshire, England teachers were interviewed, while teachers in other school districts in England and Wales completed questionnaires. This report examines: (1) types and formats of materials; (2) classroom use of materials; (3) teachers' opinions; and (4) modifications and improvements needed. Tables and a 35-item bibliography are included, and appendices contain the survey questionnaire and a sample letter sent to selected schools. (JHP)

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RESEARCH PAPERS
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THE USE MADE IN ECONOMICS AND ALLIED SUBJECTS OF MATERIAL SUPPLIED BY INDUSTRY

by

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The Use Made in Economics and Allied Subjects of Material Supplied by Industry

by

Peter F.Allen,B.A.,M.A.

Summary

This paper explores the extent and nature of the use made by teachers of economics and business studies of material supplied by industry either free,or at a heavily subsidised price.Some Northamptonshire school staff were interviewed,and others were sent a questionnaire.The survey findings are analysed,and an account is given of an attempt to broaden the investigation to include other schools in England and Wales.Recommendations are made with a view to improving the quality and availability of materials to schools through closer co-operation between schools and the suppliers in industry.

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1.Introduction

This study investigates teachers' use of resources and information from industry, and to this end the aim of the research is to find out what use is made by teachers of economics and its allied subjects in the field of the commercial and business studies subjects, of the material and information supplied by industry. The definition of material supplied by industry which is used here is that material which is available free, on loan or at a subsidised price from all forms of industry, whether primary, secondary or tertiary, or from organisations set up to represent these industries. The material supplied may take a number of forms. The more usual and expected forms are perhaps those traditional ones such as wall charts, pictures, posters, leaflets, pamphlets, booklets and so on, which have for many years been the main standby for firms receiving requests from teachers and pupils for information. Films and filmstrips have also been popular in the past, but have to a large extent been replaced by slide-tape presentations and video cassette recordings. The rise of new technology has brought the computer program into this field as well now , and a number of firms make either listings or discs available for the more popular types of computer used in schools such as the BBC or the RML. What is often less likely to be thought of as 'material' is the visiting speaker from a firm or organisation, and the educational visit to a firm's premises. A case could be made for the exclusion of these items from a survey such as this on the ground that the very nature of either a visit by a speaker or to a place of business is transient in a way that printed material, tapes, films and computer discs are not. However it could be said in defence that the information gained by pupils from a visiting speaker is unlikely to be very different from that which could have been obtained from literature issued by a firm, and indeed it could well be that the information from the speaker is more up to date. Similarly it could be argued that a visit to a firm could be likened to the visual presentation contained in a film or video, and in fact it could be said that it also could provide more up to date information as well as have a more immediate impact. Thus it is felt that the visiting speaker and the visit to a firm could, and should, be classed together with other forms of written, audio and visual material supplied by firms, and it is this definition that will be generally used throughout this study.

The line of investigation will be as follows: first,an illustration of some of the types of material that are available from industry in the subject areas concerned - although this will by no means be a definitive list; secondly, a description of the findings of a survey conducted in schools in Northamptonshire, followed by a much shorter outline of the situation in some of the schools elsewhere in the country that emerged from contacts with other schools during the research. Finally, some conclusions on the research will be arrived at, and also recommendations will be made, not only for future study but also for the way in which schools might approach the problem of obtaining and using most effectively the information they require on industry, and also the way in which firms might best ascertain what it is that schools both want and need, and the most effective way in which it might be supplied.

2.Material Available from Industry

In this section I intend to look at material available from a number of sources in industry which could be of use in economics and business studies subjects. However, since it would be almost impossible to cover all the firms and organisations which make material available to the subject areas in question, a selection is made. Thus I will cover insurance, banking, building societies, multinational companies, and smaller firms.The firms and organisations in question also produce material for other subjects.

The insurance and life assurance companies in the UK have put the production and distribution of educational materials and information in the hands of their umbrella organisation, the Association of British Insurers (ABI). This organisation produces and distributes free of charge, or in the case of a video package at a subsidised price, a wide range of material which is aimed at the upper secondary level for life skills, money management and business studies subjects.It could be argued that the material is fairly heavily slanted towards the promotion of insurance/assurance. Some items, such as a booklet entitled "Looking After Your Money: A Guide to Money Management", were scrupulously fair and unbiased, if somewhat unattractive in format.However, some of the pamphlets included in the kit with the above, which were more colourful and attractive, unashamedly promoted insurance/assurance.The same kit includes a tape for pupil use and some rather brief teachers' notes, and is intended for the 14-16 age range. ABI also supply a kit on life assurance comprising teachers' notes and specimen forms; two motor insurance "games" called "Crunch" and I Declare"; and material which could be adapted for use with younger or less able pupils, including a board game and photocopy masters. This latter kit, called "Spending and Saving", was written by a teacher and is notable for its lack of any kind of propaganda, save for the fact that it was published by ABI. Other teacher reference material is available, but ABI's regular news-sheet, "Money Management Review" is almost unique amongst materials published by industry for schools' use.This is because it appears to have no counterpart as a source of current information and ideas for teaching economics and business studies topics. In general, it could be argued that ABI material could be useful, given a certain amount of adaptation in some cases, and is no more slanted towards their own point of view or industry than might be expected.

The Banking Information Service (BIS) is, like ABI, an industry sponsored organisation set up by the clearing banks. It is therefore the main source and supplier of bank related information to schools for, although most banks retain their own publicity departments, both they and the material they supply are much less geared to educational use. As is stated in the introduction to their catalogue, the BIS aim to provide free re-usable material to all secondary schools and FE Colleges in England and Wales, and they welcome comments, whether good or bad, on the services and the resources that they provide. In a policy statement, they say that although the printed word has been, and will remain, the mainstay of their material, they have been at pains to introduce role plays, simulations and visual aids, and they also stated that they intended shortly to move into the field of Computer Aided Learning (CAL). The latter was realised early in 1987 with the issue of its "Bisness" package for schools. In addition they are seeking to expand their coverage outside the usual 14-16 age range, and also realise that their material is increasingly being used outside the economics/commerce/careers subject areas. The material provided by BIS includes a series of booklets, wallcharts and specimen forms, all available in class sets, and intended for examination courses at 14-16.They are colourful, realistic and well presented. They concentrate on the banking services provided by the clearing banks, although

reference is made to institutions like the Post Office and the National Girobank. Money management, methods of payment, borrowing, technology, the City, the clearing system, and the history of banking are all among the topics covered by sets of booklets and posters, with the exception of borrowing, which has a role play. All the above are intended for use with both examination and non-examination courses below A Level, but there is a set of booklets and sample documents dealing with international trade and payments, and three major booklets for A Level students on the international financial system, monetary policy and the British financial system, again available in re-usable class sets. Video cassette recordings are also available on the subject of various banking topics, mainly for examination groups, on free loan. A speaker service is provided for both 14+ and A Level, with the request that teachers get in touch with speakers beforehand to discuss content and level of the talk. A range of methods and visual presentations are said to be on offer, and a suggested list of topics is provided. Finally the BIS also offers material for careers work in schools, attendance at careers conventions, and courses for teachers on banking topics. The BIS has been involved in a number of curriculum initiatives, according to its publicity information , including SCIP, The Economics Education 14-16 Project, the Economics Research and Curriculum Unit, and Economics Awareness Teacher Training. In fact the BIS materials and track record appear extremely impressive in their commitment to the service of education. Also, given the nature of the organisation, it is possible to argue that the material concerned is no more biased or slanted towards banking than might be expected,and its position as an umbrella organisation means that there is almost no advertising for individual banks. In fact it is interesting to note that when, a few years ago, BIS ceased its practice of using imaginary bank names on sample cheque forms e.g. "Bank of Education", and used real bank names, it was generally welcomed by teachers of business studies interviewed in Northamptonshire as being more realistic. Teachers contacted during the course of this study were generally of the opinion that the materials from BIS were comprehensive, varied and useful,although it might be necessary to balance them with material from other organisations in the field of financial services.

The Building Societies Association does have material of a general nature, but it is that from the individual societies which in this case is the most notable.Material from the Leeds Permanent Building Society is apparently available both from the Marketing Officer of the Leeds Permanent, or from branch offices on request,which makes it readily accessible to schools. The basic resources offered are three packs for primary schools, secondary schools and for careers education. The primary school pack, entitled "The Home in Your Community", was actually produced by a primary school teacher, and aims to provide a cross-curricular approach to the subject of home, involving a local trail, land use, information handling, raising capital, building societies, interior design and planning, model-making and the building and selling of houses. There are comprehensive notes for both pupils and teachers, as well as illustrations and photo-copy masters. It would have applications at the lower end of the secondary and at middle school level, as well as primary, and appears to provide a valuable and adaptable resource. The secondary school pack, entitled "You, Your School and the World Outside", likewise had professional educational help, and is the product of a co-operative effort by Wiltshire-based teachers. It includes sections on savings and investment, spending, homes and housing, business and government. The techniques used, other than question and answer, include simple research, calculations and simple statistics, a business game, discussion, case studies, group work, survey skills, location studies, studies of business structure and mini-enterprise. In other words an

important range of skills and activities is encouraged by the kit. There is rather more reference to building societies in this material than in that for the primary school, but it is not intrusive.The careers pack consists basically of a game involving group work on occupational profiles, applicant profiles, job advertisements, letters of application and interviews. It is relatively straightforward and unadventurous, but nevertheless useful. It also makes very little use of the fact that it is Building Society sponsored material, except for the inconspicuous logo at the bottom of each page.The Leeds also offers two video films: one on the history and development of building societies in general, and the other on water safety. Their newest venture appears to be the development of computer software, in line with several other organisations sponsoring educational material. The most important from the teacher's point of view is probably the management game provided on a BBC disc, which simulates the running of a building society branch office and the decisions involved. The accompanying booklet gives very full instructions.There is no recommended age level, but it is designed to be adaptable enough for use with mixed ability groups. The society also provides a second program which a school can use to run its own savings scheme linked with the local Leeds branch, an exercise which, like any school bank project , has its educational uses. There is also a standing offer for the local branch manager to give a talk on building societies to groups of pupils on request. Overall the Leeds Permanent material appears to be competent without being colourful, and could, with imagination , be built upon or indeed split up for use as the teacher wishes and it does not appear to be unduly biased in favour of building societies.

I will mention the Halifax Building Society, only because its material differs from that of the Leeds.The Halifax School Project Kit is oriented mainly towards Building Societies and their work, and the sixth form study pack, "Money and the Housing Market" likewise includes a large section on the role of the building societies. It would seem that although these kits can obviously be used with profit, it may be necessary, as with the BIS material, to ensure a balanced coverage.

The material received from the Unit Trust Association (UTA) is, by their own admission, not really intended for school consumption but for the potential investing public and for "in house" use. The material supplied included a booklet entitled "Everything You Need To Know About Unit Trusts", which is mainly text, enlivened by a number of cartoons. A booklet entitled "Exploring Unit Trusts" was printed text only, and there was also a leaflet of facts and figures, and a copy of their in house journal "Unit Trust News". The material was not particularly attractive, although it could be cannibalised and adapted for a case study or worksheet at 14+, or used as the basis for a sixth form discussion or enquiry. It was of course, unashamedly promoting unit trusts since it was not intended for any other purpose.

British Petroleum plc (BP) have for some time been deeply involved in the production of educational resources for a range of subjects across the curriculum, and this includes a section in their glossy catalogue of resources for economics and business studies.One of the major items available for purchase is a business game entitled "The Paraffin File", which may be purchased either as a computer disc or in manual form, and originates from the co-operation between schools and polytechnic staff. Also available on loan are three decision packs "North Sea Challenge", Westoil Distribution" and "Eastoil Personnel", developed in conjunction with Bath University School of Education. There is free information available on the company itself, including a very useful explanatory pack for sixth

formers on the company report. The material appears to be straightforward and unbiased, and I feel that it is significant that educationists have been so closely involved in the production of the material. The presentation is good, and the catalogue descriptions are clear and informative. The company has organised "preview centres" in most LEA's where teachers can view and try out the materials , and from where they can be borrowed. The company waives all copyright on printed materials, but permission must be sought to copy computer programs and video films. It is an impressive selection of materials for schools to use, and especially strong in the promotion of discussion and decision making skills as far as economics and business studies are concerned.

The Public Relations Department of C.&J.Clark Ltd., the shoe firm of Somerset, produced a kit for primary school use as part of its contribution to Industry Year.The kit could have applications in the middle school or the early years of secondary school, since the introduction emphasises that the activities are designed to be adaptable.The kit also claims that it is not specific to the shoe industry, but to industry as a whole, and that its specific aim is to counter what the firm feels to be the negative attitude to industry in both schools and the country as a whole at the present time.The kit consists of Teacher's notes, workcards and role cards, wallchart, worksheets, and a computer listing for a BBC Microcomputer, as well as a list of sources and references. The project itself has the following sections: "1. The Industry Walk; 2. Looking at Local Industry; 3. What People Do; 4. Design; 5. A Classroom Industry; 6. Industry is Adding Value." Again the emphasis is on adaptability, so that schools can use the resources to generate a wide variety of work including research, surveys, mathematics, computing, group work, mini enterprise and so on. The kit is aimed at promoting industry and the entrepreneurial function, and heavy emphasis is placed upon this in the teachers' notes. However, the teacher is free to decide to what degree that view is itself passed on in the classroom. If used with care and imagination, the kit could provide pupils with a valuable insight into industry.

The IBM Schools and Colleges Information Service, based in Winchester is currently compiling a database to enable it to evaluate its present service to education, and to identify future needs. It is in the process of conducting a staged mailshot, which will eventually cover all regions of the country, introducing its service and giving schools some idea of the materials available. The most important part of the mailing is the questionnaire-cum-order-form, which seeks to identify the type,size and location of the establishment, its current links with industry, audio-visual facilities, need for materials and the curriculum areas in which they will be used.Although the survey is far from complete, initial results indicate that although schools do use materials quite heavily at all levels, they are rarely used as part of an examination course, whereas in FE colleges their use in B/Tech is much heavier.

In an interview, a representative of the service indicated that in the field of computing, it was less a case of industry finding out what the schools wanted than one of schools finding out what IBM had to offer. The reason for this was that the knowledge gap between schools and the computer industry was widening rapidly as research and development went ahead. In fact it was stated that the "state of the art", as far as business applications was concerned, was far more advanced than schools imagined. However, it was pointed out that schools were beginning to realise the situation, and were asking for less on programming and more on industrial applications. The real problem for IBM was, it was said, how to get information into schools which was as up to date as possible, given that much

of what is current in industrial applications could well be out of date in six months. The main problems for IBM are reported to be as follows. First, schools have little or no experience of industrial computing, since most computer science teachers have not been trained in applications, and therefore have little idea of what is actually involved. That business studies teachers are in a similar position is evidenced by requests to the firm for "anything" on "the paperless office" or "EFTPOS", as if the teachers concerned had got hold of the current "buzz-word" and were not sure of what they should be asking for. In such cases, IBM was rarely able to help since the request was not sufficiently specific. Second, material that is to be sent out needs to have a long shelf life, but in many cases any material on computing applications is likely to be out of date before it is issued, and IBM say that do not have the resources to update it continually. Also they do not want to issue material that is too general in its coverage as to be almost useless. It has produced a series of wall-charts on information technology in co-operation with other sponsors, but this is expected to,have a shelf life of only 5 years at most. Third, most of the material that they can send out is too far ahead to even appear on the examination syllabi. Thus IBM feel that they are faced with the problem of trying to steer education away from its present course towards one which will at least keep it in touch with current developments in the field. It was also emphasised that teachers need to do background reading in the current press to compensate for their lack of training in the field of computing. Comparison was made with bio-technology which was likewise moving ahead fast, in contrast with the petro-chemical industry where the pace of development was relatively slower. Finally it was pointed out that schools did not appear to appreciate that many of the applications were not custom made for a particular situation, but were transferable and adaptable as the customers needs changed as a result of expansion or diversification. Thus it would seem that IBM are aware of the difficulties they face in supplying the education service with up to date information on their particular field, and indeed much of what is sent out is in the form of promotional literature for teachers to adapt as they wish, because this is the best and indeed the only material available.

Finally, although only a sample of the material available has been covered here, there is considerably more available from sources such as the Stock Exchange, Lloyds of London, the individual banks, ICI, Unilever, Shell, J.Sainsbury, and Marks and Spencer. There is also an "International Teaching Resource Centre" at Wetherby in Yorkshire, which handles the distribution of material for such organisations as British Rail and the Electricity Industry.What is used, how and in what way, are amongst the questions addressed in the next section.

3.Survey Report:the use of material supplied by Industry in Northamptonshire Schools

In the interviews with teachers, and in the subsequent questionnaire sent to teachers of economics and business studies subjects in the remaining secondary schools in the county, the questions were based on three main avenues of investigation. First, what sort of material was being supplied, how was it being supplied and by what sort of firm or organisation? Second, what material was being used in the department or school, how was it being used, and what did teachers think of it? Third, what modification, if any had been made in the form or use of the material, what changes and improvements would teachers like to see, and what further resources would they like to see being made available? Two other minor questions were in fact added to the survey, asking whether industry year had made any difference to their use of material, and also whether they had encountered any bias in materials used and how they dealt with it.
The questionnaire (see Appendix A) arose, in fact, out of the interview process. The interviews, which were completed first, were based upon a list of questions which served as an *aide memoire* at the time. Thus the list of questions came to be modified into those used in the final questionnaire if it was found that a particular one was not being understood by interviewees. Thus, in the interviews that took place in seven Northamptonshire schools, and in the subsequent questionnaire sent out to the remainder, the line of enquiry was as follows: (see questionnaire in Appendix A)
Question 1 attempted to find out what material from industry was being used for in the subject or department in question. An attempt was made here to distinguish between what might be termed passive use, such as display, and active use such as role play.
Question 2 asked what material was actually being used, as an attempt to discover the type of material which teachers found most useful in their work.
Question 3 was an attempt to find out what type of organisation had supplied the material, and what that material was.
Questions 4/5 inquired into the frequency of use of the material, and the most frequently used item(s).
Question 6 sought to identify the means by which the material had been obtained.
Question 7 tried to find out what funds, if any, were devoted to the acquisition of material from industry.
Question 8 attempted to obtain some kind of idea of the ease of access to the material within the department/school by finding out where the materials were normally stored.
Question 9 tried to find out if there was any pattern of usage by age group within the subjects.
Question 10 was an attempt to discover the importance attached to the materials in teaching and some of the faults in them.
Questions 11-13 tried to find out if teachers had modified the material they had received in any way to suit their own needs, and also whether there were unfulfilled needs for any type of material.
Question 14 tried to assess the impact of Industry Year 1986 in the area of use of materials from industry.
Question 15 attempted to discover whether teachers felt that any of the material that they received was biased, and if so what methods they used to deal with it.

The Schools:
There are 43 comprehensive schools (excluding middle schools) in the Northamptonshire Local Education Authority, of which 6 are single sex schools. Most schools are 11-18, but in the Borough of Northampton, and in the north-east of the county, there is a upper/middle school system in operation. Of these schools, interviews were conducted in 7 schools out of the original 10 contacted, during the latter part of the Autumn Term 1986. It was not possible to arrange interviews in 3 schools because the time available was limited, and it was difficult to arrange a mutually convenient time. In most cases the interviews were conducted during a morning session as and when staff were free, and in one particular school two successive mornings were spent there on the specific invitation of the Headteacher. In every school the head of economics and/or business studies subjects was interviewed, and in addition, where possible, a representative of Humanities, Science, CDT, Home Economics, and Careers. Then, if time and availability of staff allowed, interviews were conducted with those teaching CPVE, Remedial Subjects, Maths, English, Modern Languages and any special project or initiative. Interviews were conducted with 3 economics teachers, 4 business studies teachers, and 21 teachers of other subjects.

In early 1987 the remaining 36 schools in the county were all circulated with a copy or copies of the questionnaire (see Appendix A) addressed to the Head(s) of Economics and Business Studies Subjects, accompanied by a pre-paid envelope for reply. Replies were received from 15 of the 36 schools (a 42% response rate), of which 3 replied for both economics and business studies. Altogether, 8 replies were received for economics, and 10 replies referring to business studies subjects under various guises, such as commerce, commercial studies, office studies, etc.

Therefore, if the interview data is included, this study has data referring to a total of 22 schools or 51% of the county secondary schools. From information provided by the advisory staff, every school appears to have some kind of commercial course, but only 20 seem to have an economics course, and the latter situation is further complicated by the fact that some schools with small sixth forms share economics teachers on a consortium basis, or rely on the local FE College for the economics input. The majority of commercial or business studies courses are at 4th/5th year level, and the majority of economics courses are at 'A' level only. Thus it has been necessary to attach some weight to the commercial/business studies subjects as a representative for economics at the level of years 4 and 5.

Results of the Questionnaire and Interviews
In the following tables, the data was obtained from the answers to interview questions or to the questionnaire. The answers are expressed as percentages of the number of replies, which in the case of economics teachers (Ec) was 11, business studies subjects teachers (BS) 15, and other subjects (OS) 21. It should be noted that in almost all cases the columns do not add up to 100%, because teachers were invited to tick any item in the questionnaire which they felt was applicable.

Table 1.
Question 1: What is the material supplied by industry used for?

	Ec%	BS%	OS%
(a) Display	64	80	86
(b) Teaching part of the course	73	100	86
(c) Resources for coursework	55	73	57
(d) Role playing	36	60	19
(e) Discussion	73	47	19
(f) Other	27	13	0

It is notable, first, that economics teachers appear to use material for display purposes rather less than either of the other two categories. A possible explanation for this which came out in the interviews is that since economics tends to be a minority subject in most schools, it seldom has a specialist room with its own display area. In contrast, the business studies subjects almost invariably have a room or a suite of rooms with plenty of wall space for display. But there was one notable exception: a 1960's built school with two 'glass walls', where the teacher of business studies drew attention to the lack of all but the bare minimum of display space. Staff teaching economics also drew my attention to the fact that there appears to be a lack of wallchart and poster type material from industry which is suitable for 'A' Level economics, whereas for business studies, and for others subjects such as geography or home economics, for example, there was plenty of material, which was much in evidence in the classrooms and display areas seen.

Economics also appears to use material from industry rather less than other subjects for teaching part of the course, although, together with use for 'discussion' it is by far the most important use made of the material within the subject. It appeared from interviews that this might be attributable, in part at least, to the traditional nature of much economics teaching, and the perceived need on the part of teachers to adhere to the syllabus. The kind of comment made was that "There is not much material that I know of which fits in with the syllabus". There also appeared to be a greater tendency for economics teachers to use articles from the financial press for teaching and discussion, and this point was made both in interviews and in some questionnaire replies. The exception as far as economics is concerned would appear to be the BIS 'A' Level books, which were well known and used, although it was commented that they were equivalent in level to "another textbook", to quote one teacher who also felt that the were almost incomprehensible for some of her weaker students, without a great deal of careful explanation.

The relatively heavy usage of material from industry for coursework in the business studies subjects reflected the need expressed by teachers for coursework topics in subjects like commerce and office practice, which has always existed at CSE level, and which they expect to continue in GCSE. Thus teachers of these subjects say that they have built up a resource bank of such materials from any available source, something which was also notable in home economics in one school and in CDT and science in two others. There is, however, a note of caution which ought to be sounded here with regard to questionnaire answers, since it was found that teachers sometimes gave the term 'coursework' a far wider meaning than was intended and took it to mean any work done during the course and not just a student-initiated coursework project as was intended.

Therefore, the fact that over 50% of economics teachers report that they use material from industry for coursework may not refer to assessable examination work, but to its ordinary classroom use.
The high level of use of role play in business studies subjects may be an indication of the availability and use of BIS material, which was found to be in regular use and well regarded by teachers. However, it was apparent from interviews that the ABI role play material was much less well known and consequently less used. Role playing would appear to be more used in economics than in other subjects, except business studies, and two respondents commented in their questionnaire replies that they intended to use role play in the near future, although it was not indicated whether this material would be from industry or not.
It would appear, from comments made by teachers of the subject, that the fact that economics tends to be taught in small groups is one of the reasons behind the heavy use of material from industry for discussion purposes. Teachers indicated that they tended to give students a reading assignment, from one of the BIS booklets for example, and ask them to prepare this for subsequent discussion in class. As has already been pointed out above, it was felt that the 'heavy' nature of these booklets made discussion and clarification by the teacher an essential feature of their use.
Although in questionnaire replies the category 'Other' was seldom specified by respondents, it would appear from interviews with business studies teachers that this may refer to company or production line simulations (two schools), or to the use of resources for pupil reference. Also, two economics teachers indicated that items like the Bank Reviews were constantly available for pupil reference in the sixth form library, and were thus included in this category.

Table 2

Question 2: What is the nature of the material used?

	Ec%	BS%	OS%
(a) Wallcharts/Posters	64	87	90
(b) Pictures/Photographs	9	33	43
(c) Films/Video	81	67	86
(d) Slides/Filmstrips/Tapes	45	27	28
(e) Booklets/Pamphlets,etc.	91	93	76
(f) Worksheets/Forms	27	67	33
(g) Speaker from firm/organisation	73	93	43
(h) Samples	9	27	14
(i) Advertising Material	27	67	28

Wallcharts and Posters appear to be a common item in material supplied by industry, and this may be an important factor in the high usage of this category reported in both questionnaires and interviews. However, it is very often the case that the charts supplied are vital to courses, and business studies teachers maintain that such items as BIS wallcharts on the use and clearing of cheques were in this category.Pictures and photographs appear to be little used in economics, but much more so in business studies, where teachers reported that they regularly displayed pictures of business office equipment and furniture. Pictures were also observed to be heavily used in other subjects such as geography, languages and home economics, when these classrooms were visited during interviews, and in the case of languages, it was reported with regret by staff that such material was often all that was available.

The high usage of films and video in all areas might perhaps be regarded by some as predictable, since so many firms make these available, but the lower usage by business studies subjects might be explained by such factors as the situation reported in one school where the physical difficulty of moving the equipment to the classroom was a problem, and in another where interdepartmental lack of communication prevented its use. However, as with the BIS Report, the most frequent reason given for not using a video film was that there was insufficient time, or that it was difficult to order sufficiently far in advance as required. However, two economics teachers reported that they felt that their subject was more than adequately catered for by programmes which could be recorded from the television. They therefore saw no need to go to the trouble of ordering them from industry sources. Slides, tapes and filmstrips are less used than formerly, according to comments from staff, especially since the advent of the video. However, it was also pointed out that pupils find it difficult to listen to an audio tape, and that they are thus often only used for relatively short periods of time, if at all. The heavier use in economics may indicate a greater ability or willingness on the part of senior pupils to listen to a tape, but it was found that some teachers in answering this section included the use of tapes bought from educational suppliers, rather than those from industry.

The high level of reported usage of booklets and pamphlets in all subjects may reflect their number, variety, and the easy availability of these items from industry. In one home economics department shelves of such booklets for pupil reference were observed, and in another school, the main criticism by a science teacher was that such booklets were not always available in class sets.

Economics and the business studies subjects appear to use them very heavily, and those from organisations like BIS and ABI were often amongst those mentioned most frequently by staff, and their value was appreciated. In economics, it was the BIS 'A' level booklets which were most frequently mentioned, and in business studies it was the BIS set 'Understanding Banking'.

Worksheets and forms are often supplied by firms with their kits and packs. The heaviest use would appear to be in the business studies subjects, where such items as sample cheque forms and other bank items were seen being used for class teaching, project work, and for display. Insurance proposal forms and the like were also reported to be valuable in this area, but most teachers expressed the opinion that worksheets were less useful, since they sometimes used language which was pitched at the wrong level, or did not ask the right questions. The majority of teachers interviewed expressed the view that they would, and did, construct their own worksheets to go with the material as necessary. It was interesting to note that items such as cheque forms and proposal forms were reported as being in use in subjects other than economics and business studies e.g.home economics, life and leisure skills courses and in remedial classes and a low attainers' project.

Speakers from firms appear to be well used by economics and business studies teachers. Discussion with teachers revealed that this is partly because organisations like BIS, Understanding British Industry and Understanding Industry will provide them free or at a heavily subsidised cost. These subject areas also tend to have contacts with the local business community which they utilise. Indeed, one school has organised its own industry support group to liaise with local firms on this and other matters. There was less reported use of speakers in other subjects, but this was not through lack of willingness to use them. Frequently, speakers were available for careers talks, but one science department was actively looking for speakers to address its sixth form groups with very little success. However, one economics teacher who had used BIS speakers was

critical of what she termed their lack of ability to communicate with pupils. She felt that their style and method of delivery was less than stimulating for sixth form groups, hence she was wary of using them again. On the other hand, a business studies teacher in another school had found a local industrialist who not only spoke to pupils, but was also willing to conduct 'mock' interviews with them and give them feedback.

Product samples are seldom given on a national basis, and only one, originating from the Flour Advisory Bureau, was found. However, some teachers did report that local firms were often pleased to give samples of materials and products on request, often during or after a visit by a group from the school. However this question again caused difficulties, since some teachers construed it as referring to sample documents, and thus the results may not be a reliable indication of the situation. Advertising material, as opposed to that specifically intended for educational consumption, was also reported as being used when the latter was not available. This was particularly the case with teachers of business studies subjects, where teachers stated that it was the only way in which they could keep themselves and their pupils up to date with new developments in equipment and technology. It was also reported to be the case with home economics during the study of consumer affairs, in science for the study of food technology, and in certain aspects of design in CDT. Table 3

Question 3: What firms/organisations supplied the material?

	Ec%	BS%	OS%
(a) Nationalised Industry	18	53	81
(b) National/Multinational Company	81	67	86
(c) Local Company	64	80	52
(d) Industry-funded Organisation	73	60	48
(e) Other	18	13	14

The dominance of Other Subjects in the first category may be an indication of the fact that teachers of science, home economics and geography reported that industries like coal and electricity supply publish large quantities of material for use in their subjects. Business studies teachers indicated that their main contact with nationalised industries or corporations was through the material distributed by the Post Office, both on its postal and its banking and money transfer operations. The lower figure for economics would appear to confirm comments by these staff in interviews, about the peripheral nature of much of the material from nationalised industries as far as their subject is concerned. It would seem from the remainder of the figures in Table 3 that all other sources are well exploited by teachers. However, the higher figures for economics and business studies in the category 'Industry-funded Organisation' is probably a reflection once again of the heavy use of BIS and ABI materials found in schools visited, whereas other subjects appeared to rely more heavily on materials from firms in the public and private sector. The 'Other' sources category in this case proved, on investigation, to represent such factors as contacts with parents and members of the governing body which should perhaps have gone under local or national companies. In one example of such a parental contact, the school had gained a computer program for use in Design and a scientific balance for the use of the sixth form. Information gained from interviews with teachers of all subjects revealed that 'local firms' varied from local branches of public utilities, like electricity and water, to a local wholesaler, an insurance broker and an office equipment firm.

Table 4

Question 4: Estimates of how often the material from industry is used.

	Ec%	BS%	OS%
(a) Daily	0	7	9
(b) Weekly	27	53	38
(c) Monthly	18	20	14
(d) Termly	18	7	5
(e) Rarely (if at all)	0	0	0
(f) In 'bursts' when relevant	64	27	38

Few of the teachers interviewed felt that the first category was applicable to them, although a number of economics teachers commented in both interviews and questionnaires that the Bank Reviews were permanently available for pupil reference. Teachers of business studies subjects were the most frequent users, and they attributed this to the nature of the subject and the need for both teachers and pupils to keep up to date with new developments, as well as the need for practical work and coursework. One teacher of business studies interviewed attributed her weekly use of such material to the TVEI scheme recently introduced in the school, which had led to a revamping of the business studies syllabus, with the emphasis on the practical and investigative aspect. Also it was pointed out that there was a great deal of material which could be used at different stages in a course. However, for many teachers, and especially those of economics, the most favoured category was the last, partly because they maintained that it was difficult to give an accurate estimate of use, and partly because they used whatever material was relevant when a particular topic had to be taught. All teachers claimed to use some material from industry, although teachers of English came very close to not using any, and one teacher was only excluded from the category of non-use by participation in a writing competition sponsored by the Post Office. Even in areas like mathematics, modern languages and physical education, in which teachers reported that they felt they were poorly provided for in respect of aids from industry, there was generally something that they could use e.g. the wallcharts from Walls in the field of school gymnastics were seen on display in one school. However, as far as other subjects were concerned, it was the teachers of science, home economics and, to a lesser extent, geography, who said that they used material from industry regularly, again partly because the nature of their subject required it and partly because there was plenty of material available. The pattern of usage, according to comments made by teachers themselves, appears to be governed by the fact that teachers fit the material to the syllabus. This point could have implications for the providers, in that if they wish their materials to have maximum use, they need to find out what schools require in relation to their syllabi.

Table 5.

Question 6: How was material obtained?

	Ec%	BS%	OS%
(a) Write	81	93	76
(b) Phone	9	67	33
(c) Take what comes unsolicited	55	47	52
(d) Visit Firms	27	60	5
(e) Other	9	7	0

The majority of both economics and business studies teachers interviewed indicated that writing to the firm or organisation concerned was their main means of obtaining material. Most often this was the result of seeing an advertisement in the educational press, but it was reported that circulars to schools were also important as a source of addresses. The business studies teachers also indicated they used the telephone as a means of contacting firms, and the table shows that they did so more than any others. The reason given for this was that they found it more convenient to use the 'phone if possible, since they found from experience in industry, that it was a more effective means of ensuring a prompt reply, and also because they often contacted local firms as part of their normal work in schools to arrange work placements and visits. This last point leads to the fourth category, where again it is the business studies teachers who visited firms to obtain material, and once again they reported that this was due to long established contacts as a result working with local industry in the past. Many teachers took what came unsolicited and said that they had often been very pleased with the material which had come this way, and which they might not otherwise have known about, but few if any teachers reported that they relied entirely upon this as a method of obtaining material. The final category includes some teachers who said that they had inherited material when they took up their post and were therefore unsure of either the source or the means by which it was obtained. However, it should be mentioned that some teachers, especially those in other subjects, pointed out that they felt that they had insufficient time to devote to either writing or phoning to obtain materials, and even less to researching the sources beforehand. Many such teachers expressed the need for a subject-based list of possible addresses to which to write when they had identified a particular need. Such a service is provided by the science and by the home economics subject associations, as has already been pointed out earlier in the chapter.

Table 6

Question 7: Is material ever bought or hired?

	Ec%	BS%	OS%
(a) Yes	9	33	28
(b) No	81	53	71
(c) No answer/Don't know	10	14	1

The answers to this question indicated a lack of preparedness and ability to pay on the part of teachers for what they termed extras rather than essentials. This reflects the tight financial situation reported by teachers in every school visited, where they were glad of any free material, but where finance was only available for basic equipment, texts and consumables. The fact that some schools did report that they spend a certain amount can hardly be regarded as significant when the total amount for all schools surveyed was reported as, economics £10, business studies £107 and other subjects £350. In the case of most schools, the amount allocated reportedly reflected a provision for return postage on videos, although as one teacher pointed out, she felt that there was sufficient material that could be recorded from the television to make the expense of sending back videos unnecessary. In only two schools was anything substantial spent, and in these cases it was the science department making a special one-off purchase of a vital video or kit which was not available anywhere else.

Table 7

Question 8: The storage and availability of materials from industry within the school.

	Ec%	BS%	OS%
(a) School Resource Bank	36	13	0
(b) Departmental Resource Bank	55	80	100
(c) Other e.g. Personal stock	9	0	0

Most teachers reported that they operated a departmental resource bank in their particular subject area, although this appears to depend upon whether a department is defined as a group of subjects like the sciences, or as a single subject, as in the case of economics. In this particular situation, the questionnaire failed to distinguish satisfactorily and thus under 'other subjects' a departmental resource bank may for example refer to geography alone, or to the humanities subjects as a whole. School resource banks appear to be relatively uncommon, and in none of the schools visited was a centralised system encountered. In some schools it was reported that the management of films, videos and sound tapes is centralised with a booking system for staff.

Table 8

Question 9: What age groups use the material?

	Ec%	BS%	OS%
(a) 11-13	0	7	57
(b) 14-16	27	87	81
(c) 16-18	100	80	48

The figures for economics above indicate the predominance of 'A' Level economics in schools in the county. Teachers interviewed reported very little penetration below sixth form level, and then often as part of a life skills type of course rather than as a subject in its own right. Business studies use of the material obtained from industry was mainly in the examination groups in the 4th and 5th years at CSE and now GCSE level. The use of it at post 16 level was usually connected, it was said in interviews, with the establishment of CPVE courses, and involvement in TVEI. In only one case was involvement of business studies below examination level reported, and then as a 'taster' in a third year modular course in preparation for option choices. In other subjects, there was much more of a spread of use across the age ranges, but even then there seemed to be a concentration on the 14-16 age range. One geography teacher commented that he felt that there was insufficient time for the use of material from industry in his lower school course, and another commented that he found that there was too little material that he considered relevant to his particular 'A' Level syllabus, particularly relating to the location of industry.

Table 9

Question 10 (Pt 1): For what is material from industry most used?

	Ec%	BS%	OS%
(a) Basis for lessons	55	67	66
(b) Re-inforcement of lessons taught	64	73	76
(c) Stimulate discussion/investigation	91	40	66
(d) Sources for Project/Coursework	45	73	71
(e) Other	0	13	33

Economics teachers used material from industry in all categories. In the third category, teachers commented that they would often give pupils material to read from a Bank Review or a BIS booklet, which would then be followed up in a group discussion. Economics teachers rated discussion skills highly at sixth form level, and felt that material from industry was particularly useful for this purpose. The lower figure for use of the material for projects or coursework in economics reflects the relative scarcity of courses in this subject below 'A' Level in the county. On the other hand in the business studies subjects, teachers attributed their heavy use of the material to the need for its use in coursework, and also to the more practical nature of the subject with its emphasis on understanding the use of business forms and accounts. The lower use of material as a basis for discussion by business studies teachers may have its reason in the individual project/assignment-based nature of much of the work reported in this subject area. In one school, the teacher said that she used material from industry in her mixed ability groups, particularly for pupils who wanted to go further into a topic. The use of material for student reference was reported by a number of teachers, especially those of economics, but also business studies teachers, but in most cases this was felt to be subsumed in the fourth category. In almost all subjects it was reported that material from industry was used in all aspects of teaching, although perhaps the most important in the view of many staff are the reinforcement of lessons already taught, and as a source of information for coursework. The category 'other' represents some items like sixth form reference, and also some teachers who said they sometimes used posters mainly to brighten up the classroom rather than as a teaching aid, especially when there was little other material for display at the time.

Table 10

Question 10 (Pt 2): What was least useful about any of the material?

	Ec%	BS%	OS%
(a) Too simple/basic	18	13	33
(b) Too technical	55	33	62
(c) Irrelevant to syllabus	36	27	28

In the case of the first category, although teachers generally were satisfied with the material they received, they felt that there were instances in which pupils were being 'talked down to', and this opinion was voiced most frequently by teachers in subjects other than economics and business studies. However, one teacher who ran an introductory course in the third year felt that there were insufficient materials for pupils below the fourth year. On the other hand, there was more frequent criticism of some of the material as being too technical. Several of the economics teachers contacted commented that the BIS 'A' Level booklets, although valuable, were extremely difficult for pupils to use on their own, and that in consequence, considerable teacher support was necessary. In fact, one teacher described them as being equivalent to another textbook rather than a supplement to the one in use. In business studies, one teacher expressed the opinion that it was often material provided by manufacturers which was too technical for her pupils, but it was science teachers who complained most about excessive use of technical jargon, although teachers in personal and social education also complained about reading levels being too high. As far as relevance to the syllabus is concerned, teachers felt that there was a definite need for them to be selective in their use of material from industry, and to edit anything which was felt to be irrelevant. A teacher of business studies felt, for

example, that the material from the Stock Exchange giving the historical background was irrelevant since she felt that her course related to the situation as it was today rather than the past. However, as a teacher of geography in another school pointed out, if the material he received was of no use to him, he had always found it easy to pass it on to another teacher who could make use of it. The point was also made by some staff that it was often necessary, because of the demands of the syllabus, to edit some extremely interesting material. One teacher wondered whether industry should ensure that their material fitted the syllabus, or whether the syllabus should be modified so that it can make use of the material.

Table 11

Question 14: Has use of material from industry changed as a result of Industry Year 1986?

	Ec%	BS%	OS%
(a) Increased	18	33	24
(b) Stayed the same	73	40	76
(c) Decreased	0	0	0

Although it appears that the use of material from industry did not decrease in schools as a result of Industry Year, only a modest increase is reported. In the interviews, three basic reasons for this emerged: first, teachers maintained that they were already using material as heavily as they could; second, there were only a few instances that teachers knew of where material had been specifically introduced as a result of Industry Year; third, Industry Year in their schools was often directed more towards other activities such as 'awareness' exhibitions, which were often slanted towards the careers aspect. However, in two schools the exhibitions by local industry had stimulated more contact with local industry in the form of speakers and visits, as well as a small amount of material for use in the classroom. In one case,an Industry Week exhibition was used as the starting point for their new CPVE course studying local industry. In another school, however, the business studies teacher said that although she had used more material from industry during 1986, it was more as a result of the introduction of TVEI than Industry Year itself.

The Open-Ended Questions.

Certain of the questions on the questionnaire and in the interviews were open-ended in nature, with the idea of providing teachers with the opportunity of expanding upon their answers.

The first of these was question 3(a) which attempted to indicate what materials teachers were actually using in schools. Question 5 was also linked with this, since it was an attempt to find out which materials were most frequently in use. Unfortunately, the latter question was almost universally ignored in the questionnaire, although from the interviews it would seem that BIS material is certainly most frequently used by economics and business studies teachers, and material from oil companies for example was most often mentioned by science and geography teachers. However the answers to question 3 also serve to give some indication of frequency of use, as well as of what materials are actually used. Once again, BIS was mentioned by 8 teachers of economics or business studies subjects in their replies to the questionnaire, whether it was speakers, films/videos, pamphlets, role-plays or a combination of its services. This was

generally borne out in the interviews when it was found that teachers invariably mentioned BIS first. The Bank Reviews were mentioned as an important resource twice in questionnaire answers and in every interview with economics teachers. Other materials mentioned included Gestetner and Pitney-Bowes for office machinery, British Telecom and the Post Office for communications, and also the Building Societies and the United Biscuits Business Game. However, the most detailed answer to this question came from a Corby school where the business studies department had, as part of its course, set up a trading company called 'Top Sellers' to give pupils practical experience and had also involved an impressive list of local companies. Thus:

1. National Westminster Bank had opened an account for the firm and had provided paying-in slips, money bags, statements and sponsorship.
2. Another local firm had supplied invoices, order forms and receipts.
3. A local accountant gave book-keeping exercises, paper and a talk for pupils, as well as working out a simple book-keeping system for the firm.
4. British Steel sponsored the firm with cash.
5. Avon/Weetabix provided one member of staff with management training.

Question 11 asked for ideas for improvements that might be made to existing material which had been used by teachers. The complexity of some of the material came in for criticism once again, and one teacher suggested that a glossary of difficult industry terminology be provided for teachers as well as pupils. Better visual material which was short, specific and to the point was also requested, as was increased relevance to subject and exam syllabi. A business studies teacher asked for more basic information showing how a simple business transaction worked for the use of the less able pupil. The last two suggestions relate to the audio visual materials specifically and the first asked for an audio commentary with filmstrips similar to tape/slide presentations, and the second involved a criticism from a teacher of the lack of 'sparkle' in video commentaries which were felt to be too monotonous and slow, with too few voice changes to maintain pupil interest.

Question 12 was an attempt to follow on from the previous question by asking teachers what they would like to see supplied in the economics and business studies field, and this resulted in rather more replies than the previous question. More business games and computer programs were requested, and although one teacher had already written several programs for use in business studies and accounts, it was felt that there was plenty of room for more. Cheap project kits were asked for in one questionnaire returned by a business studies teacher, but this was not expanded upon. A list of local firms willing to accept visits from pupils was one suggestion, although the interviews showed that some other schools had taken the initiative and had contacted local firms themselves with considerable success. Similarly the suggestion of more contact with and visits to the school by personnel from local firms had been tackled by the same school with success. An 'A' Level economics teacher requested some simple case studies relating to investment appraisal, costing and wage bargaining. The same teacher also wanted more opportunities for industrial experience for teachers, but was well aware that the difficulty lay mainly with lack of resources within the education service. He felt that his own period of such secondment was a worthwhile experience that he would like other colleagues to enjoy , and to repeat himself. There was a request for a central resource library from one teacher who was perhaps unaware that something rather similar was already being set up by the TVEI Related In-Service Training staff, and also that even before

this initiative, BP materials had been on display in, and available for loan from, a Northampton Teachers' Centre. Case studies were also requested by other teachers. One wanted them on 'specific topics', and another was keen that they demonstrated the 'unrealism (sic) of theory', but neither expanded on what they meant by these suggestions. A final suggestion from one of the questionnaires was for more resource packs like those of BP, which the teacher in question had found extremely useful.

Question 13 asked teachers if they had made any modification to material to make it more suitable for their own purposes in the classroom. Information gathered in the interviews indicated that many business studies teachers frequently did so, and to some extent this was revealed in the answers to the questionnaire. For example, a number of teachers indicated that they frequently cut out illustrations from business magazines, and simplified the material in them for class use, and this was something which was observed in science and in home economics as well as business studies during visits to schools to conduct interviews. The most common reply in the answers to the questionnaire was however that teachers of economics and business studies take ideas and modify them to fit the needs of the group. The use of the material by teachers to create their own case studies for pupils was also a common response, since it was felt by one teacher that in this way the information could be dealt with in more manageable quantities by pupils. Other ideas included the development of worksheets from the material provided, as well as role plays, discussion material, ,and the selective filing of material from the Bank Reviews. Videos were also used in 'Short bites', rather than being shown uninterrupted, where a teacher considered the whole film was not needed for a particular lesson or topic. Thus the general indication from teachers was that they saw themselves as performing an editing and modifying function, rather than creating entirely new materials.

Question 15 asked teachers to indicate whether they felt that they had encountered any examples of bias in the material from industry that they had used, and if so how they had dealt with it. Two teachers answered that they had not encountered any bias, and a further five neglected to answer the question at all. Of those who did answer, the main concern appeared to be the material that was seen to advocate one particular idea or system. For example, one teacher felt that material from industry tended to be very 'pro market economy', and others felt that nuclear energy and the activities of the big oil companies were presented in a way that excluded any discussion of alternatives. In such cases, teachers felt that it was necessary for them to present a balanced point of view as far as possible, but most felt that where the bias was blatant the pupils were often the first to point it out. It was felt by most of the teachers interviewed that advertising of the firm's own product or service and brand name was 'fair enough', provided that it was not intrusive, since the firm or organisation had provided the material free.

4.Use of Material Supplied by Industry in Other Schools

Following the survey of schools in Northamptonshire, an attempt was made to contact other schools in England and Wales to assess their contacts with industry and use of material supplied. The sample in this case was one of convenience in that schools were selected from a list supplied by the database of the Centre for the Study of the Comprehensive School at York University, on the basis of information contained which stated what initiatives the school had been involved in. Schools were taken from the following areas:

Croydon (2), Wimbledon, Greenford, Berkshire, Sussex, Suffolk, Yorkshire (3), Glamorgan (3), Birmingham (2), Bristol, Tyne and Wear, Lancashire (2), Nottingham.

A letter (see Appendix B) was sent to each school stating the purpose of the research and requesting information on materials supplied to the school by industry, how they were used, and what evaluation of them had been made. No reply was received from nine schools in:

Tyne and Wear, Lancashire (2), Glamorgan (2), Nottingham, Birmingham, Wimbledon, Croydon.

Of the schools which did reply, two of the Yorkshire schools declined to assist, pleading lack of time to deal with the request in the detail necessary. A school in Swansea replied that it had received no materials as a result of its contacts with industry, which had largely been confined to an exchange of information expertise, and therefore felt unable to assist. A further school in South Croydon replied that, although it had work experience contacts with industry, these were not used for school based work, and that its highly successful Industry Day had used either materials created in school or supplied by the local TVEI Unit rather than by industry.

The remaining seven schools did provide some information which, although limited by the fact that shortage of time and financial resources made any follow up impossible, nevertheless provided some insight into what is happening elsewhere in the country.The individual replies of each of the schools are considered below. The first three items refer to printed matter which was returned with no covering letter or further explanation.

A Brighton comprehensive school provided information concerning its involvement with industry through the local TVEI scheme, which began with an exploratory meeting in February 1985 to discuss employers' involvement. Industry material was only mentioned briefly and indirectly in a request for shop floor personnel to give talks in school, since it was felt that they would have more credibility with the pupils, and the point was made that factory visits by pupils should be properly organised with both preparation and follow-up activities. Later meetings discussed Mock Interviews and a proposed Industry Year Conference at the school, but overall it would appear from the information supplied that this initiative involved relatively little in the way of use of material supplied by industry.

A school in Berkshire, forwarded a copy of "Paper and Board: Manufacture and Use", which is a folder comprising worksheets and follow-up activities for pupils, together with sources of further information for teachers, which is the

product of the West Berkshire Industrial Trail Project and is published by the West Berkshire Schools Industry Liaison Group. Whilst the pack is based upon an existing firm at Calthrop near Thatcham, the actual involvement of the firm concerned would appear to have been limited to "advice and assistance" (W.Berks. Industry Liaison Group, Introduction and Acknowledgements, para 4.). There is no indication of the degree of involvement of the company in providing the facilities for the production of a slide pack, but mention is made of use of information from pamphlets published by the British Paper and Board Industry Federation, Imperial Group Ltd., and the Reed Paper Group. Most of the material appears to have been adapted from other sources such as newspapers and books, according to the references given. However, the two main firms in the area had been contacted, and offered talks, visits, film and tape/slide presentations to schools as a result. It appears that this is the result of the initiative of teachers in a particular area taking a local industry, and with that industry's cooperation, building a teaching pack based only partly on material supplied.

A Birmingham comprehensive school, forwarded a copy of "Understanding the Working World" which it described as:

A school-wide policy which enables students to have a comprehensive understanding of the world of work which equips them with the skills required to take a full part in that world.

It appears to be an attempt to affirm the skills needed by pupils, and to encourage the participation of local firms in this process. It contains a list of 50 participating firms. The input from firms takes a number of forms, and these are outlined in further appendices. The Social Studies Department of the school stages sessions involving management and unions in the simulation of actual industrial relations problems, and the sixth form are involved in seminars on participation in the "enterprise culture" organised by a firm of management consultants. They also hold a "Challenge of Industry" conference sponsored by a bank and a building society, and involving both local and national firms over a two day period, and they have an established an "Understanding Industry" programme with speakers from firms. However the material supplied referred almost exclusively to speakers from firms and not to any other kind of material from industry, and there was no reference to any evaluation of the programmes.

Letters were received from two schools with more detailed and specific information on the use of material from industry.

The Head of Economics in a Bristol school pointed out that to give a full account of the work that takes place involving industry would be a dauntingly lengthy process. However, he did provide a summary of what he felt were the salient points. The respondent stated that in general he was not particularly interested in materials supplied by industry, since he felt that they were deliberately general in their appeal rather than having a particular group of students in mind. He stated that he therefore tended to use commercially produced materials including radio and television broadcasts, although he made an exception with regard to BIS and Stock Exchange materials which he felt were relevant and useful. He did however make use of visits, and of the services of speakers. In the British Industrial Society scheme of work that they operate at the school they have , as part of the coursework, used the following:

A visit to a large retail establishment,
A visit to a medium sized manufacturing firm,
(both of which have a pre-arranged question and answer session linked with them)
a one-day work shadowing exercise, in order to build up a profile of a worker,
A talk from a trade unionist.

He also stated that he had recently made use of talks from the Trading Standards Officer, the Personnel Officer from John Lewis', the local Chamber of Commerce and the Transport and General Workers Union. He felt, however, that the real test of the value of such information and material from industry was whether the quality of what went on in the classroom had been improved. He felt that it was for the benefit of the pupil and the enhancement of the learning process that visits and other materials were being used, he was unsure about how such activities should be evaluated. He said that he was able to see that a visit had been an advantage in that it illustrated and tied in with his teaching. Likewise he recognised that a visit or a speaker sometimes left pupils confused, often because of poor delivery rather than poor content, a point that harks back to some of the comments of Northamptonshire teachers in the previous chapter. Finally, he pointed out that the ultimate evaluation of such information and materials was, in his opinion, the students' performance in examinations and coursework, and that he would continue to make use of visits and speakers. Elsewhere in the school he reported that the Careers Department used work experience, careers conventions, visits to firms and visiting speakers, and that speakers were also used by Social Education and a number of other subject areas in the school. He thus felt that the school had close links with local industry.

The Head of a school near Leeds provided a detailed list of materials used by subject area, but with little commentary as to its value. In this list geography is the subject closest to economics in content, and it appears to make considerable use of materials from industry in its GCSE course and for fieldwork, from firms such as Bibby's Agricultural Products, British Gypsum, Kwiksave and Elmet Carriers. There is also a study of the local Enterprise Park Industrial Estate involving an analysis of incentives from the local authority and transport facilities. Materials from British Coal relating to the Selby Coalfield is used for both location and role play exercises, and CEGB material is used in 16+ and CPVE courses for case studies in the siting of local power stations like Drax and Ferrybridge. Oil company films and posters are used, and their pamphlets such as 'An introduction to the oil and gas industry' and 'Oil for everybody' are singled out as particularly useful. British Gas also provides statistics and information, including some on exploration and on the Morecombe Gas Field.

The school also has input into the work of the North Yorkshire Schools Industry Association (NYSIA) which has, through teacher groups and help from industry, produced materials on industry in the York area and Tourism in York for use in geography. NYSIA has also cooperated with Sturge Chemicals in producing a teaching pack on bio-technology. Science has used material from Yorkshire Water in years 1 and 2, and from Colgate in years 3 and 4. CDT has used information from industry in the formation and running of mini-enterprise, and also RHP Bearings of Knottingley set a design problem for 4 'A' Level students. The Careers Department has used pamphlets from local industry and Bibby's has provided a video tape and notes on First Aid for use with senior pupils. The

school thus appears to make considerable use of material from industry, and it is implicit in this that they value this contribution.

An Upper School in Suffolk replied that it is heavily involved in schools/industry links via a project financed by the Sainsbury Family Trust. The work appears to be based on developing teaching and learning strategies by working with industry to produce curriculum materials. The school forwarded a copy of some material produced by third year pupils which, although carrying the rather mundane title "A Day in the Life of a Plastic Bag", proved to be the record of a day visit by six pupils to Marchants Manufacturing Limited. The study included a site plan, history of the company, health and safety procedures, a description of the manufacturing process, quality control, a diagram of the company structure and interviews with members of the workforce from the shop floor, computer room and management. The work produced may well have used material given by the company, but no specific acknowledgement of the fact was made.

The Head of a school in Middlesex, which is heavily involved in GYSL, issued an invitation to visit and talk to staff for an afternoon session. Thus the information from this school has been gathered in much the same fashion as that from the interviews conducted earlier in the Northamptonshire schools. The Head of Humanities at the school was involved in both CPVE and in GYSL, working with industry and using the materials it provided. In the CPVE course, materials from local industry had been used to form a data bank which could be used for the preparation of assignments, and use had also been made of training materials supplied by firms, house journals and statistics on the workforce. Visiting speakers from Lyons-Tetley on health and safety, the Leeds Permanent Building Society on house buying, and from Barclays Bank had been used. The Head of Humanities commented that such speakers were improving the quality of their delivery, and he felt that some firms were beginning to take this aspect of their work with schools more seriously and were giving some training. He felt that speakers were useful as a reference and source of information. He also believed that school/industry links of this nature should be expanded, but was critical of the approach of some firms, particularly those operating in the locality of the school. He reported that these firms had a tendency to give the pupils what they considered appropriate rather than what the school wanted.The example was given of a firm which gives pupils a tour of the production line, irrespective of whether this is what the school has requested. He also felt that these firms had a set presentation, and were more concerned with public relations and the possibility of future recruitment than the educational aspect of the exercise.

In the GYSL project within the school, the pupils have to investigate an hypothesis as part of their coursework, and this involves an investigation of why certain industries are located in Ealing. In the course of this exercise, 11 local companies take a maximum of 8 pupils each for two one-day visits. It was reported that the setting up of these visits was extremely time consuming, involving the teacher in contacting some 30 firms in order to find 11 which were willing to take the pupils. However, it was stated that these firms were less than enthusiastic, and it was felt that they were not always fully committed to the project as an educational exercise. As an example of this, it was mentioned that all 11 companies were invited to send a representative to a 'tea party' at the school at which it was to be explained precisely what the school hoped the pupils would get from the visits, but only 3 firms turned up. Thus the member of

staff concerned had to visit the remaining firms beforehand, and even then he found, after the pupils had returned, that none of the firms had taken the trouble to address the hypothesis. In fact from the majority of firms there was little or no feedback to the school apart from the pupils themselves. Only one company sent any introductory material to the pupils about what to expect, health and safety regulations and a pass for each pupil. During the visits, the pupils were often given irrelevant material such as a cyclostyled history of the company, a wiring diagram of an electric motor or a copy of the company report and accounts. Information, such as that on the management structure of the firm, was often withheld despite pupils saying it was necessary for their work. It was also often the case that, when the pupils arrived at the premises, they were taken round by an unsuitable person, like a shop floor worker who was unable to answer their questions relating to the hypothesis on location. The Head of Humanities realised that there was a possible conflict here in that the firms might not have the necessary time or manpower to spare, but the end result was that he found pupils returning with widely varying amounts and quality of information, which could unintentionally be to their disadvantage if they had been to a particularly unhelpful or disorganised firm. However he did point out that the firms concerned were having to deal with other schools making similar demands and that it was possible that saturation point was being reached. Indeed, some small firms that he had contacted had complained of the disruption caused by too many visits.

Elsewhere in the teaching of humanities, the staff report that they make use of materials from both the public and private sector of industry. Normally they write to any relevant source of material, but are able only to take free materials since they cannot afford to buy or hire. They have not modified material in any way as yet, merely using whatever is relevant. Materials on Nuclear Energy, Oil and Electricity were mentioned, but since Industry is only a half term module in the lower school it was felt by staff that there was not much time for the use of such material.

It was also mentioned that this school is one of the schools in the area chosen to take part in a project involving input of money, material and expertise from American Express to enable them to establish a modular Travel and Tourism course across the curriculum. Currently this project has involved Geography, Home Economics, Computer Studies and Business Studies Departments.

The Economics and Business Studies Department was also visited and a group interview conducted with the staff. They reported that they made use of any material from industry that they could obtain free, and are currently using items from ABI, the Halifax and the Leeds Permanent Building Societies, a Building Societies Association simulation, and the Marks and Spencer pack on siting a store. They also made use of BIS material, but although they had copies of the 'A' Level booklets,they were not currently in use. The sixth form economics group were using company reports, including the BP pack. Films and videos were rarely used because of the difficulty of moving the equipment around, but it was maintained that a new system to be implemented in the near future would change this. Material has been subject to modification, mainly in the form of the production of their own worksheets. Local industry has been used for work experience, and Greenham Trading had been used to demonstrate credit control. A visit had also been made by staff and pupils from business studies to the BT Showcase. Midland Bank had provided material and expertise to set up a

flourishing school bank run by Business and Information Studies students as part of their course. A need for more material from industry on Information Technology was expressed, and it was felt that material was too often pitched above the pupils' heads, or was too simple. It could be seen that the department had relatively little wall space available for display purposes, but wallcharts from BIS were in evidence. The resource material was mostly kept in a filing cabinet in the departmental office/staffroom and was accessible to all. Staff expressed a willingness to use whatever relevant material was available for their subject area.

APPENDIX A - Survey Questionnaire

TO THE HEAD OF ECONOMICS AND/OR BUSINESS STUDIES

Please indicate: School.....Subject.....

QUESTIONNAIRE ON THE USE MADE OF TEACHING/LEARNING MATERIAL SUPPLIED BY INDUSTRY (Primary, Secondary or Tertiary)

(Tick Any Box)

1. Do you/your department use material supplied by industry for:

(a) Display .....
(b) Teaching part of the course .....
(c) Resources for coursework .....
(d) Role play .....
(e) Discussion .....
(f) Other (please specify)..... .....

2. What is the nature of the material used?

(a) Wallcharts/Posters .....
(b) Pictures/Photographs .....
(c) Films/Video .....
(d) Slides/Filmstrips/Tapes .....
(e) Booklets/Pamphlets/Leaflets .....
(f) Worksheets/Forms from a Firm .....
(g) Speaker from Firm/Organisation .....
(h) Samples .....
(i) Advertising Material .....

3. What Firms/Organisations supplied the material?

(a) Nationalised Industry e.g. AWA, CEGB, BR. .....
(b) National/Multinational Company .....
(c) Local Company .....
(d) Industry-funded Organisation e.g. BIS, ABI, UBI. .....
(e) Other.....(specify) .....

3A. Overleaf please give a list of the items that you have used.

4. Could you provide an estimate of how often any of the material from industry is used?

(a) Daily .....
(b) Weekly .....
(c) Monthly .....
(d) Termly .....
(e) Rarely if at all .....
(f) In 'bursts' when relevant .....

5. Which item(s) do you find you use most frequently (answer overleaf)

6. How did you obtain the material?

(a) Write .....
(b) Telephone .....
(c) Take what comes unsolicited .....
(d) Visit firms .....
(e) Other.....(specify) .....

7. Do you buy/hire any material e.g. Videos, Project Kits?
If so, approximately how much money would be allocated?
Yes/No £.....

8. Do you have:

(a) A School resource 'Bank' .....
(b) A Departmental Resource 'Bank' .....
(c) Other.....(specify) .....

9. With which age groups do you use the material?
(a) 11 - 13 .....
(b) 14 - 16 .....
(c) 16 - 18 .....
10. In what ways is the material most used? (Rank Order Please)
(a) Basis for lessons .....
(b) Reinforcement for lesson taught .....
(c) Stimulus to discussion/further investigation .....
(d) Sources for Project/coursework .....
(e) Other.....(specify) .....
least useful?
(i) Too simple/basic .....
(ii) Too technical .....
(iii) Irrelevant to syllabus .....
(iv) Other.....(specify) .....
11. Can you suggest any improvements that could be made to material you have used?.....
.....
12. What other materials/resources would you like to see made available from industry?.....
13. In what ways have you developed and modified material to suit your specific needs?.....
.....
14. Has your use of material from industry been changed as a result of Industry Year 1986? Has it:
(a) Increased .....
(b) Remained about the same .....
(c) Decreased .....
15. Have you come across cases of bias in the material, and if so how do you deal with it?.....
.....

THANK YOU FOR YOUR HELP.

Peter Allen.

APPENDIX 9 - Letter to Schools outside Northamptonshire

Tel: Wellingborough (0933) 622965

4 Chapel Lane
Stanwick
Wellingborough
Northants
NN9 6QB

3rd March 1987

The Headteacher
(insert address of school)

Dear Head

I am currently engaged on some research into "The Use Made by Schools of Material Supplied by Industry", as part of my M.A. work in Economics Education at the University of London Institute of Education. The type of material that I am interested in includes not only that issued by national and local companies/organisations free or for a small charge, but also visits to a school by an industrialist/speaker, and visits to places of business, whether in manufacturing or services.

I understand that your school has done some work in this area, namely (insert title of project or nature of work), and I am naturally interested to find out if there is any link with the work that I am doing. I would particularly like to know whether any information or material supplied by industry is used at your school, and in what subject area. I would also be interested to know if any evaluation of the material was carried out and/or if any modification was made either before or after use to make it more suitable for pupil use.

Although my main interest is in the field of Economics and the Business Studies subjects, my studies of a sample of Northamptonshire schools has involved all subject areas, for purposes of comparison.

I enclose a stamped addressed envelope for a reply, and I would gladly re-imburse you for the cost of any photocopied or printed material you may be able to send if you let me know the amount involved.

Thankyou in anticipation for any help that you may be able to give me.

Yours faithfully

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